# Join the printing revolution



**HP Officejet Pro X451/X551 color printer series** 



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## **Enjoy next-generation printing**

Forget everything you thought you knew about desktop printing. The HP Officejet Pro X451/X551 color printer series is not just a new line of printers, it's a fresh new office experience—engineered by HP from the ground up. In a fast-paced business world, you need a printer designed not just to keep up, but to set the pace. You'll be amazed at the host of thoughtful features we've included. And the star of the show: lightning-fast print speeds, made possible by the revolutionary HP PageWide Technology— the same type of print technology found in the top-end HP Inkjet Web Press.

#### Who can benefit?

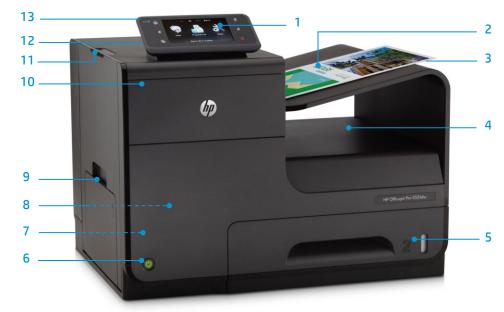
This web-connected printer is ideal for environmentally-conscious professionals in small to medium-size work teams who need feature-rich, quality desktop color printing at fast speeds, and low operating costs.



### **Product walk around**

- 1 X551dw: 10.9 cm touchscreen color display X451dw: 5.1 cm mono graphic display control panel (not shown)
- 2 300-sheet output bin
- 3 Output bin extension
- 4 Paper/supplies storage area
- 5 500-sheet input tray 2 (optional 2<sup>nd</sup> 500-sheet tray 3 not shown)
- 6 Power On/Off button
- 7 792 MHz processor, 512 MB RAM<sup>1</sup>
- 8 Integrated automatic two-sided printing
- 9 50-sheet multipurpose tray with long paper extension
- 10 Front door allows convenient access to easy-to-replace ink cartridges
- 11 Single door access for clearing jams
- 12 Easy-access USB port to save and print files directly (X551dw only)
- 13 Integrated wireless networking<sup>2</sup>
- 14 Ethernet port, 10/100Base-TX
- 15 USB port for connecting 3<sup>rd</sup> party devices (X551dw only)
- 16 Hi-Speed host USB 2.0 port (for printing from computer)

#### HP Officejet Pro X551dw printer shown



Front view

Rear I/O panel close-up



#### Series at a glance





	HP Officejet Pro X451dw	HP Officejet Pro X551dw
Part number	CN463A	CV037A
Print speed (black or color, letter or A4) <sup>3</sup>	Up to 36 ppm Professional mode Up to 55 ppm General Office mode	Up to 42 ppm Professional mode Up to 70 ppm General Office mode
Print resolution (black/color) <sup>4</sup>	Up to 1200 x 1200 / 2400 x 1200 dpi	Up to 1200 x 1200 / 2400 x 1200 dpi
Input capacity (standard/optional) <sup>5</sup>	550/1,050 (including MP tray)	550/1,050 (including MP tray)
Recommended monthly page volume 6	500 to 2,800	750 to 4,200
Duty cycle (pages per month) <sup>7</sup>	Up to 50,000	Up to 75,000
Control panel	5.1 cm mono graphic display	10.9 cm color touchscreen
Ethernet print server	10/100Base-TX	10/100Base-TX
Wireless networking	802.11b/g/n	802.11b/g/n
ENERGY STAR® qualified	✓	✓

## Top features

Equip your office with this feature-rich, workgroup-ready desktop printer. You can boost productivity and enjoy high-performance professional color output. Top features are highlighted below.



Professional color for less



- Get vivid color at breakthrough speeds—new General Office mode delivers up to 70 pages per minute (ppm) in black or color<sup>3</sup>—that's up to twice the speed of color lasers.<sup>8</sup>
- Produce high-quality prints at top speeds while saving ink, time, and money—save up to 50% on printing
  costs versus color lasers.<sup>9</sup>
- Maximize document impact—HP EasyColor manages settings to optimize results.
- Get laser-equivalent print quality with Original HP all pigment inks that are water-resistant and highlighter friendly.
- Archive with confidence—prints are durable with archive standard ISO 11798 certification.
- Print brilliantly at blazing speed with the same HP PageWide Technology found in top-end digital presses.



- Proactively manage this device and remotely monitor status with industry-leading tools like HP Web Jetadmin, HP Embedded Web Server, and the HP Universal Print Driver.
- Use the intuitive control panel for easy access to printer functions, including time-saving business apps (on the X551dw only).<sup>12</sup>
- Help keep the device and data secure with built-in security features.



- Print from virtually anywhere using a smart phone or tablet with HP ePrint.<sup>13</sup>
- Connect and share this device on your Ethernet or wireless network.<sup>2</sup>
- Walk up and print right away, using the easy-access USB port (X551dw only).
- Minimize interruptions—print up to 9,200 pages per cartridge<sup>14</sup> and load up to 1,050 sheets at once.<sup>5</sup>
- Depend on HP for reliable workgroup printing—designed for high volumes up to 4,200 pages a month (up to 2,800 for X451dw).





- Use up to 50% less cartridge and packaging material as compared with color lasers.
- Use up to 50% less paper with automatic two-sided printing.
- Organize web content and stop printing content you don't want with the HP Smart Print tool (free download).<sup>17</sup>
- Reduce your impact—easily recycle your Original HP ink cartridges for free through HP Planet Partners.



Productivity features



On-the-go



Up to 50% less energy use

# Get up to twice the speed and up to half the printing cost of laser



#### Vivid color at breakthrough speeds

This printer delivers vivid color at up to twice the speed of color lasers to help you save time and resources. When printing in general office mode, the printer produces full color prints at up to a blistering 70 pages per minute. And without the need to warm up any components, the first page gets printed fast, as quickly as 9.5 seconds. HP PageWide Technology makes it all possible.

#### Quality prints at up to half the cost per page

When HP PageWide Technology is teamed up with HP pigment ink cartridges specially designed for use in this printer, the result is a winning combination of professional-quality color prints at up to half the cost per page versus color lasers. <sup>9</sup>

#### **HP EasyColor optimizes results**

Make a statement with high-impact, professional-quality color documents. Use HP EasyColor to manage settings for maximum impact. HP EasyColor technology automatically improves mixed-content documents that are printed from Microsoft® Office programs. This technology scans documents and automatically adjusts photographic images in .JPEG or .PNG format. HP EasyColor technology enhances the entire image at one time, rather than dividing it into several pieces, which results in improved color consistency, sharper details, and faster printing. You can expect glossy text, bold graphics, and vivid images. And, you can count on consistent color—page after page, document after document, and ink cartridge after ink cartridge. Use HP Web Jetadmin and the HP Universal Print Driver to manage color use and protect your color investment.<sup>11</sup>



#### Vibrant, water-resistant, durable inks

The HP 970/971 pigment ink cartridges used in this printer consistently deliver professional-quality, durable documents. You can print water-, smear-, and fade-resistant documents<sup>20,21</sup> that maintain quality for decades.<sup>22</sup> Choose the right ink cartridge for your budget—standard for lower purchase price, or high-capacity for a better value. Receive low-ink alerts and maintain quality for the life of the cartridge with built-in intelligence. For cartridge part numbers, see Ordering information on page 13.

HP all-pigment inks offer vivid, highly saturated colors and bold blacks. They provide benefits over traditional dye-based inks, including superior water and fade resistance and better durability. These unique qualities are possible because the pigment solid does not dissolve in water but is dispersed to prevent pigment settling. As a result, the printed output resists rain, water spills, and highlighter-pen smearing, and you can handle important documents with confidence.

For even better print quality, we recommend papers with ColorLok® technology. ColorLok papers are engineered with special additives that result in faster drying time, and minimal show-through on your printed page, which means that you don't have to sacrifice readability or image quality when printing on both sides of the paper.

The printer supports a wide range of paper types, including HP Glossy and Matte Brochure media as well as advanced photo media and other inkjet specialty papers.

#### **Archive with confidence**

This printer's ink has achieved ISO 11798 certification. <sup>10</sup> This rigorous standard ensures that printouts have a certified durability for wear and tear, often referred to as "archiveability." You can rest assured that the quality and readability of prints will remain high for years to come.

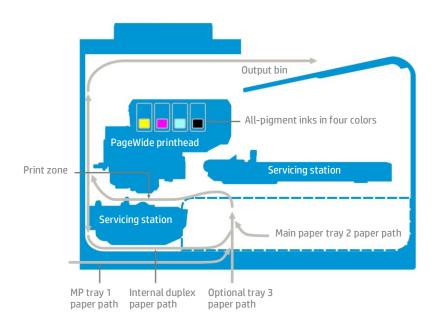
#### Revolutionary HP PageWide Technology—how does it work?

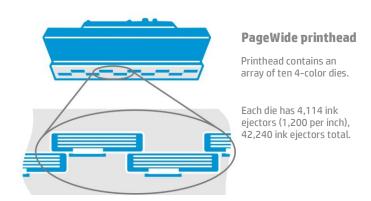
HP PageWide Technology is the secret behind the exceptional speed and reliability of this amazing printer. The star player is a printhead that spans the entire width of the paper, enabling single-pass printing at blazing fast speeds. This is the same HP PageWide Technology found in top-end digital presses.

The printhead contains a massive number of tiny ink ejectors—over 40,000 of them positioned to span across the width of the page. As the paper passes under the printhead, ejectors release a minute drop of black or color ink at precisely the right location to form the printed image. Unlike laser-based printers, where a laser beam must "write" a single dot at a time, or a conventional inkjet printer, which moves the print mechanism back and forth, the printhead, with its array of ink ejectors, remains stationary—only the paper is moving while ink is applied across the page.

The printer also performs continuous self-diagnosis, using special sensors to analyze the miniscule ink drops as they leave the printhead. It then calibrates the system accordingly. This calibration process is done in real time, resulting in optimized print quality at any given moment. All of these complex processes occur at a breathtaking pace, resulting in blazingly fast desktop printer speeds.

For a more detailed description of PageWide Technology, see the technical white paper at <a href="www.hp.com/united-states/campaigns/officejet-pro-x/?jumpid=ex\_r11400\_qo\_officejetprox">www.hp.com/united-states/campaigns/officejet-pro-x/?jumpid=ex\_r11400\_qo\_officejetprox</a>.





# Help workgroups thrive with easy manageability



Remote printer management

#### Manage devices remotely using your web browser

The HP Embedded Web Server (EWS) included in the printer provides a universal interface to the device that anyone with a network-connected computer and a standard web browser can easily access, regardless of the operating system. The EWS interface can be password-protected and is only available to users within the business or enterprise firewall. It requires no special software to install or configure. EWS allows you to display status information, change settings, and manage the printer from your computer.

EWS and HP Web Jetadmin work together to meet your product management needs. You can install and manage networked devices quickly and effectively. Network administrators can manage networked devices remotely, from practically anywhere.

The HP Embedded Web Server provides a simple, easy-to-use solution for one-to-one product management in environments that have a limited number of products. However, environments that have several products might want to use HP Web Jetadmin for group product management. With HP Web Jetadmin you can discover, manage, and configure multiple devices simultaneously. This solution lets you install, configure, monitor, and troubleshoot printing and imaging devices and supplies from anywhere on the network with a single tool. Loaded with new features and enhanced security, HP Web Jetadmin is faster and easier to use than ever. You can download the software free from www.hp.com/go/wia.



#### Simplify device interaction with an intuitive control panel

Use easy-to-access menus for managing the printer. Control panel menus assist in product setup, configuring network connections, specifying default paper sizes and tray selections, checking ink levels, and performing printer maintenance tasks.

#### Do even more with the 10.9 cm color touchscreen

The bright and clear 10.9 cm color graphic touchscreen on the X551dw will transform the way you use your printer. You can complete many common tasks without ever touching your computer.



Print apps

#### Tap and swipe for time-saving business apps

The X551dw gives you quick access to handy apps right from the touchscreen control panel. <sup>12</sup> These are special print applications available exclusively to HP web-enabled printing devices. Business apps connect your device to the Internet in an altogether new and seamless way. Choose from a growing library of apps that make printing faster, simpler, and more useful than ever. Access your documents and print them in one touch from the HP Officejet Pro X551dw touchscreen color display.



10.9 cm touchscreen color display (X551dw only)

Select apps to:

- Keep commonly used business forms—invoices, contracts, receipts, and more—at your fingertips. Print them when you need them without a computer. 12
- Ouickly access and print web content.<sup>12</sup>

#### Walk up and print using the easy-access USB port

The control panel on X551dw includes an easy-access USB port to print files directly from your thumb drive. Access saved documents or photos and print them quickly.



#### **Enhance security with built-in features**

The printer features a number of options, such as enable and disable capabilities, to help secure itself against undesired access and to protect your data:

• Control panel lock—From the HP Embedded Web Server, network administrators can deter unauthorized users from changing certain device configurations and control panel settings by establishing a password and locking the control panel. The control panel lock setting itself can also be secured by setting the



Built-in security features

- HP Embedded Web Server administrator password. The admin password must then be entered when accessing the control panel lock enable/disable setting.
- Secure data—SSL/TLS (HTTPS) for secure communications, password-protected Embedded Web Server, DHCP option 81/RFC4702 /RFC4704, stateless protocol, FQDN, device syslog and firewall configurations for user access control and policies.
- Wireless authentication—The HP Embedded Web Server provides the ability to configure wireless networking via such 802.1x wireless enterprise authentication protocols as EAP-TLS, LEAP, and PEAP to support access control. The HP Embedded Web Server also provides the ability to configure wireless dynamic key encryption such as WEP encryption and WPA-PSK authentication.
- Enable/disable features—You can easily enable and disable features such as Wireless Direct Authentication, IPv6, HP ePrint, and HP EasyColor.

# Connect and print—at the office or on the go

Create the crucial connection between your business and your documents. HP ePrint technology lets you print at your convenience using any Internet-capable printing device.

#### Print from the web and mobile devices—without a computer<sup>13</sup>

HP ePrint technology liberates printing from your home or office by allowing you to print content while traveling or simply out and about from your smart phone, notebook computer, or mobile device. <sup>13</sup> And when you are in the office, the printer supports apps that let you quickly access online content, obtain documents, and print them fast and with less hassle—all without using a computer. <sup>12</sup> Because larger documents, presentations, and PDF files can be difficult to read on small, handheld device screens, you can print documents from your mobile device to read or take with you.

The printer is also Google<sup>TM</sup> Cloud Print ready, with no need for print drivers or additional software.<sup>23</sup> Simply register with your HP ePrint email address on Google's HP registration page (<a href="https://www.qoogle.com/cloudprint/learn/setup-hp.html">www.qoogle.com/cloudprint/learn/setup-hp.html</a>).

Print from a variety of mobile devices on the go:

- Download the HP ePrint app from your provider and you're ready to print. Use your mobile device to locate the web-connected printer closest to you. Then simply print your documents and pick them up.
- Attach your document to an email message. Forward that message to a web-connected printer from your email-capable device and collect your printed document.
- Use Apple® AirPrint<sup>™</sup> to easily print wirelessly from your iPad®, iPhone® or iPod touch®. <sup>24</sup>

#### Share the printer easily with wired (Fast Ethernet) networking

Designed to be easy to share, the printer offers embedded wired networking capabilities that allow you to connect the printer directly to a 10/100Base-T Fast Ethernet network. With the printer turned on, simply connect an Ethernet cable from its RJ-45 port to the network hub, switch, or router, and then install the print driver on each of the computers on the network (if the driver is already installed, you may need to select "Add a printer" from the Devices and Printers menu). On-screen instructions provide easy step-by-step installation.

#### Connect hassle-free with wireless networking

The dw models include built-in wireless networking, so you can connect the printer directly to a wireless (WiFi) network without using an external print server. Wireless networking allows work teams with a wireless router and a notebook or desktop computer with a wireless card or adapter to print via WiFi—there's no need for a cable between the computer and the printer. And the data travels quickly, at speeds up to 300 Mbps across distances of up to 30.5 meters. The benefits that are unique to built-in wireless networking include:





Direct wireless printing



Up to 1,050 sheets with optional tray 3

- Increases mobility—Place the printer anywhere in your wireless network environment.
- Reduces cable clutter—Keep your office environment tidy and organized with fewer cables.
- **Simplifies relocation**—Fewer cables make it easier to move equipment from one location to another. There's no need to install expensive LAN cabling.

# Minimize interruptions with optional high-yield cartridges and paper tray

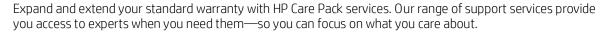
Print up to 9,200 pages per cartridge with the optional HP 970XL black Officejet Pro X ink cartridge, and get composite color yields of up to 6,600 pages with optional HP extended-life cyan, yellow, and magenta cartridges. 14

All printer models come standard with a 500-sheet input tray, and the output capacity is larger than most desktop printers, holding up to 300 sheets of paper. And you can get extra input capacity—up to 1,050 sheets at once—with the optional 500-sheet paper input tray 3. For extended-life cartridges and optional paper trays, see Ordering information, on page 13.

#### Depend on HP for reliable workgroup printing

This printer is engineered to last, meeting the demands of a busy workgroup. Recommended monthly print volumes are as high as 4,200 pages per month (as high as 2,800 for X451dw)<sup>6</sup> and monthly duty cycles are up to 75,000 pages (up to 50,000 for X451dw).<sup>7</sup>

# HP services—protect your technology investment and stay productive



With industry-leading HP Care Pack services you simply choose the level of support you need—no more, no less. A variety of 1 year and 3 year options are available for the HP OfficeJet Pro X series.

Select the HP Care Pack to best meet your needs at www.hp.com/go/cpc.

# Conserve resources without sacrificing performance

## Consume up to 50% less energy

Thanks to revolutionary HP PageWide Technology, this ENERGY STAR qualified device uses up to 50% less energy than color lasers while maintaining print speeds up to twice as fast. <sup>8,15</sup> Power usage drops significantly while in Ready or Sleep mode, which can help save resources and money without affecting the high performance of this product.

Hewlett-Packard printing and imaging equipment marked with the ENERGY STAR logo is qualified to the U.S. Environmental Protection Agency's ENERGY STAR specifications for imaging equipment. Additional ENERGY STAR qualified imaging product model information is listed at: www.hp.com/qo/energystar.

#### Save paper and reduce waste

Reduce up to 50% of packaging waste by weight versus color lasers<sup>16</sup>—Original HP pigment inks require less packaging than toner cartridges. Supplies materials by volume required are a fraction versus competitive laser







2-sided printing

Up to 50% less

energy use than laser printers. And because this printer has no long-life consumables to replace (drums, fusers, etc.), there is significantly less waste material over the life of the device.

Use HP SureSupply to consolidate supplies orders, helping save you money while reducing the environmental impact of packing and transporting multiple single orders.<sup>25</sup>

Reduce paper use by up to 50% by printing two pages on a single sheet, using built-in automatic two-sided printing. In managed print environments, HP Web Jetadmin can help cut the cost of paper consumption by setting automatic two-sided printing as the default for individual devices or entire fleets (for two-sided printing capable devices).<sup>11</sup>

#### Print web content responsibly with HP Smart Print



Finally, stop getting extra pages you don't want when printing from the web. HP Smart Print, a free download, works with Microsoft Internet Explorer®, Mozilla Firefox®, and Google Chrome™ browser to help you organize web content before you print. Now you can stop getting the extra pages and content you don't need—such as clipped pages or lines of useless text. The result is that excess pages are typically reduced by as much as 25% when printing from the Internet. To download, go to www.hp.com/qo/smartprint.

#### Reduce your impact—recycle HP ink cartridges

Simplify the management and disposal of products, and recover some of their value at end of use. Through HP Planet Partners—a free, convenient return and recycling program currently available in 47 countries—you can be assured cartridges won't end up in a landfill. <sup>18</sup> All returned Original HP print cartridges go through a multiphase recycling process where they are reduced to raw materials which are used to make new metal and plastic products.

# **Technical specifications**





<b>HP Office</b>	jet Pro X451dw	
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HP Officejet Pro X551d	V
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Print speed <sup>3</sup>	(black or color, letter or A4) Up to 36 ppm Professional mode Up to 55 ppm General Office mode	(black or color, letter or A4) Up to 42 ppm Professional mode Up to 70 ppm General Office mode	
First page out <sup>19</sup>	As fast as 9.5 seconds from ready (A4, black or color)		
Print resolution	Black: up to $1200 \times 1200$ optimized dpi from $600 \times 600$ input dpi (on unspecified, plain, HP Premium Presentation matte, and HP Brochure matte)		
	Color: up to 2400 x 1200 optimized dpi from 600 x 600 input dp	oi (on HP Advanced photo papers)	
Control panel/data entry	5.1 cm mono graphic display control panel	10.9 cm touchscreen color graphic display	
<b>Features</b> PageWide Technology	HP PageWide array printhead; 42,240 nozzles at 1,200 nozzles intelligence to maintain nozzle heath and image quality.	per-inch per-color; backscatter drop detection uses artificial	
Two-sided printing	Automatic		
Processor and memory <sup>1</sup>	792 MHz, 512 MB RAM		
Durability ratings			
RMPV (recommended monthly page volume) <sup>6</sup>	500 to as high as 2,800	750 to as high as 4,200	
Duty cycle <sup>7</sup>	Up to 50,000 pages (letter/A4)	Up to 75,000 pages (letter/A4)	
Media specifications		•	
Input capacity	Total paper capacity with optional tray 3: up to 1,050 sheets of 75 g/m <sup>2</sup> Multipurpose tray 1: up to 50 sheets of 75 g/m <sup>2</sup> Standard tray 2 and optional tray 3: up to 500 sheets of 75 g/m <sup>2</sup>		
Output capacity	Up to 300 sheets of 75 g/m2		
Media sizes, metric	Multipurpose tray (tray 1): oficio; A4; A5; A6; B5 (JIS); B6 (JIS); 16K; 10 x 15 cm; L; Hagaki; Ofuku Hagaki envelopes (B5; C5; C6; DL; Chou #3; Chou #4); custom sizes from 76 x 127mm to 216 x 356 mm  Tray 2: A4; A5; B5 (JIS); 16K; envelopes (B5; C5; DL; Chou #3); custom sizes from 102 x 210 mm to 216 x 297 mm  Optional tray 3: oficio; A4; A5; B5 (JIS); 16K; custom sizes from 102 x 210 mm to 216 x 356 mm  Automatic two-sided printing: A4, B5, oficio		
Media weights	Multipurpose tray (tray 1): plain paper 60 to 120 g/m²; photo 125 to 300 g/m²; envelope 75 to 90 g/m²; brochure 120 to 180 g/m²; card 163 to 200 g/m²  Tray 2: plain paper 60 to 120 g/m²; photo 125 to 250 g/m²; envelope 75 to 90 g/m²; brochure 120 to 180 g/m²; card 163 to 200 g/m²  Optional tray 3: plain paper 60 to 120 g/m²; photo 125 to 250 g/m²; brochure 120 to 180 g/m²; card 163 to 200 g/m²		
Media types	Plain paper (light, intermediate, mid-weight, heavy, extra heavy, prepunched, recycled, bond, other inkjet plain paper), photo (HP Advanced Photo papers), envelopes, labels, cards, specialty papers (HP Brochure Glossy, HP Premium Presentation Matte, HP Brochure Matte, and other HP inkjet specialty paper)		
Connectivity	1 Hi-Speed USB 2.0 host; 1 Hi-Speed USB 2.0 device; 1 Ethernet 10/100Base-TX; 802.11 b/g/n (station); 802.11 b/g (access point)	2 Hi-Speed USB 2.0 host; 1 Hi-Speed USB 2.0 device; 1 Ethernet 10/100Base-TX; 802.11 b/g/n (station); 802.11 b/g (access point)	
Networking capabilities	Built-in Ethernet (10/100Base-TX); WiFi (802.11b/g/n)		
Mobile printing capabilities	HP ePrint, HP ePrint mobile apps, Google Cloud Print, HP ePrint wireless direct, Apple AirPrint		
Print Languages	HP PCL 6, HP PCL 5C, HP Postscript level 3, native PDF		
Fonts	HP 80 scalable fonts; Downloadable soft fonts		





#### HP Officejet Pro X451dw

#### HP Officejet Pro X551dw

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Network protocols / configurations	IPP (IPv4, IPv6); ARP (Legacy Default IP); BOOTP; SMTP client; LLMNR; Bonjour; LP/ APIPA (Auto IP); NetBIOS/WINS; LPR(SLP)/LPD; Custom Raw Port/Port9100; DNS Resolver; mDNS; SNMPv1; Web Services Discovery; Web Services Print; DHCP options: 81/RFC4702/RFC4704, 12-Hostname; 44; Syslog; Firewall; SSL/TLS (HTTPs); Password-protected network Embedded Web Server; Enable/disable network ports & device features; 802.1x wireless authentication (EAP-TLS, LEAP, and PEAP)	
Security	Management security: SSL/TLS (HTTPS): IPP over TLS; Device firewall configuration; Control panel lock; Password protect EWS; Enable/disable network ports & device features; Syslog; Certificate support; Signed firmware; Administrator settings; 802.1x wireless authentication (EAP-TLS, LEAP, and PEAP); Pre-Shared Key Authentication for Wireless (PSK)	
Supported operating systems	Microsoft Windows® 7; Windows® 8; Windows Vista®; Windows XP® (SP3, 32-bit); Windows 2003 Server (Standard Edition, Enterprise Edition, 32-bit & 64-bit); Windows 2003 Server R2 (Standard Edition, Enterprise Edition, 32-bit & 64-bit); Windows Small Business Server Terminal Services; Windows 2003 Server Terminal Services; Windows 2008 Server (Standard Edition, Enterprise Edition, 32-bit & 64-bit); Windows Small Business Server 2008 (64-bit); Windows 2008 Server (Standard Edition, Enterprise Edition, 64-bit); Windows Small Business Server 2008 (64-bit); Windows 2008 Server R2 (Standard Edition, Enterprise Edition, 64-bit); Windows Small Business Server 2011; Windows Server 2012; Windows Cluster (Windows Server 2008 R2); Windows Terminal Services (Windows Server 2008 R2); Windows 2003 Server Terminal Services with Citrix Metaframe XP with Feature Release 3; Windows Server 2003 Terminal Services with Citrix Presentation Server 4.0/4.5; Windows Server 2008 Terminal Services; Windows Server 2008 Terminal Services with Citrix XenApp; Citrix (Print): Xen Server 5.6, Xen Desktop 5.5, Citrix XenApps 6.0, Citrix XenApp 6.5; Mac 0S X v10.6; Mac 0S X Lion; Mac 0S X Mountain Lion; Novell Netware 6/6.5/Open Enterprise Server 6.5 (Novell iPrint support only); Linux (for more information; see <a href="https://www.hp.com/qo/sap/drivers">www.hp.com/qo/sap/drivers</a> ); UNIX (for more information, see <a href="https://www.hp.com/qo/eprintmobiledriver">www.hp.com/qo/eprintmobiledriver</a> )	
System requirements, PC	Microsoft Windows 7, Windows 8: 1 GHz 32-bit (x86) or 64-bit (x86) Internet connection, USB port, Internet Explorer; Windows Vista: space, CD-ROM/DVD drive or Internet connection, USB port, Intel Intel® Pentium® II, Celeron® or compatible processor, 233 MHz connection, USB port, Internet Explorer 6 or higher; Linux: For m SAP: see <a href="https://www.hp.com/qo/sap/drivers">www.hp.com/qo/sap/drivers</a> ; for Windows OS system in the connection of the connect	800 MHz 32-bit (x86) or 64-bit (x64) processor, 2 GB hard disk rnet Explorer; Windows XP (SP3) or higher (32-bit only): any or higher, 750 MB hard disk space, CD-ROM/DVD drive or Internet ore information, see <a href="https://www.hplip.net">www.hplip.net</a> ;
System requirements, Macintosh	Mac OS X v10.6, OS X Lion, OS X Mountain Lion; 1 GB available hard disk space; CD-ROM/DVD drive or Internet connection; USB port	
Dimensions (width x depth x height)	517 x 399 x 380 mm Maximum: 678 x 670 x 380 mm with MP tray down, main tray extended, output tray extension in legal position	517 x 399 x 414 mm Maximum: 678 x 670 x 446 mm
Weight	17.4 kg	17.7 kg
What's in the box	Printer (HP Officejet Pro X451dw or X551dw); HP Officejet Pro X series Original HP 970 and 971 Setup pigment ink cartridges, 1 black, 1 each magenta, cyan, yellow; power cord, CD-ROM with software, drivers (Windows and Mac) and documentation; installation guide; setup poster; paper sample pack, USB cable (X451dw only)	
Warranty	One-year exchange warranty, service, and support; one-year technical phone support, chat, and email	

#### **Environmental and power specifications**

Environmental ranges	
Temperatures	Operating: 15 to 30° C; Shipping: -40 to 60°C
Relative humidity range	Operating: 20 to 80% RH; Shipping: 90% or less RH (non-condensing)
Altitude	Operating: up to 3,048 m; Shipping: 4,572 m
Acoustic power emissions <sup>26</sup>	6.8 B(A) (meets Blue Angel targets)
Power specifications <sup>27</sup>	Meets ENERGY STAR and Blue Angel energy targets, see www.hp.com/qo/energystar
Power supply required	Input voltage 100 to 240 VAC (±10%), 50/60 Hz (± 3 Hz)
Power consumption	Printing: 100 watts peak, 70 watts average; Standby: 10 watts; Sleep: 5 watts after 10 min, 1 watt after 2 hrs
Typical Electricity Consumption (TEC)	0.60 kWh/week
Safety approvals and requirements	IEC 60950-1: 2005 (2nd ed.) + A1: 2009 (International); EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011, Compliance CE Marking to LVD 2006/95/EC, EN 62479: 2010, GS License (Europe); UL/cUL Listed (USA/Canada); BSMI (Taiwan); CCC (China); other safety approvals as required by individual countries EC recommendation 1999/519/EC, IEC 62311:2007 / EN62311:2008
Electromagnetic emission standard	EU EMC Directive 2004/108/EC, CISPR 22: 2005+A1: 2005/EN 55022: 2006+A1: 2007 Class B, EN 55024: 1998+A1: 2001+A2: 2003, EN 61000-3-2: 2006+A1:2009+A2:2009, EN 61000-3-3: 2008 (Europe); FCC CFR 47 Part 15 Class B (USA); ICES-003, Issue 5 Class B (Canada); VCCI-2 (Japan); KCC (Korea); C-Tick (Australia/New Zealand); BSMI (Taiwan), CCC (China), other EMC approvals as required by individual countries
Telecom compliance certifications	EU: R&TTE Directive (1999/5/EC), EN 300 328 v1.7.1, EN 301 489-1 v1.8.1, EN 301 489-17 v2.1.1 (Europe); FCC CFR47 Part 15 sub C (USA); RSS-210 issue 8 (Canada); C-Tick/N279 (Australia/New Zealand); NCC (Taiwan); CMIIT (China); KCC (Korea); Radio/Telecommunications Law Approval (Japan); IDA (Singapore); other wireless approvals as required by individual countries

# **Ordering information**

Use accessories and supplies specifically designed for the printer to help ensure optimal performance.

Printers	HP Officejet Pro X451dw HP Officejet Pro X551dw	CN463A CV037A
Print cartridges		
Black	HP 970 Black Officejet Pro X ink cartridge (~3,000 pages) HP 970XL Black Officejet Pro X ink cartridge (~9,200 pages)	CN621AE CN625AE
Color	Standard (~2,500 pages per cartridge): HP 971 Cyan Officejet Pro X ink cartridge HP 971 Magenta Officejet Pro X ink cartridge HP 971 Yellow Officejet Pro X ink cartridge	CN622AE CN623AE CN624AE
	Extended life (~6,600 pages per cartridge): HP 971XL Cyan Officejet Pro X ink cartridge HP 971XL Magenta Officejet Pro X ink cartridge HP 971XL Yellow Officejet Pro X ink cartridge	CN626AE CN627AE CN628AE
Accessories	HP Officejet Pro X Series 500-sheet paper tray	CN595A
HP Care Pack Services Select the right HP Care Pack Service for your HP Officejet Pro X at www.hp.com/qo/cpc	3 year Next Business Day Onsite Exchange Service, Officejet Pro X451/X551 1 year Post Warranty Next Business Day Exchange Service, Officejet Pro X451/X551	U6Z52E U6Z55PE
Paper	Europe: www.hp.com/qo/learnaboutsupplies	
Software	HP Web Jetadmin: <u>www.hp.com/qo/wja</u> HP Universal Print Driver: <u>www.hp.com/qo/upd</u>	

#### **Contact information**

**Hewlett-Packard** 150 Route du Nant-d'Avril 1217 Meyrin 2

Geneva, Switzerland

Web address: www.hp.com

#### Notes

- <sup>1</sup> Memory is not expandable.
- <sup>2</sup> Wireless performance is dependent upon physical environment and distance from access point. Wireless operations are compatible with 2.4 GHz routers only.
- <sup>3</sup> Either after first page or after first set of ISO test pages. For details see <u>www.hp.com/go/printerclaims</u>.
- <sup>4</sup> Black print resolution; up to 1200 x 1200 optimized dpi from 600 x 600 input dpi (on unspecified, plain, HP Premium Presentation Matte, and HP Brochure Matte); Color print resolution; up to 2400 x 1200 optimized dpi from 600 x 600 input dpi (on HP Advanced photo papers)
- <sup>5</sup> Capacity up to 1,050 sheets with optional 1 x 500 sheet accessory paper tray, not included; please purchase separately.
- <sup>6</sup> HP recommends that the number of printed pages per month be within the stated range for optimum device performance, based on factors including supplies replacement intervals and device life over an extended warranty period.
- <sup>7</sup> Duty cycle is defined as the maximum number of pages per month of imaged output. This value provides a comparison of product robustness in relation to other HP LaserJet or HP Color Laser Jet devices, and enables appropriate deployment of printers and MFPs to satisfy the demands of connected individuals or groups.
- B Comparison based on manufacturers' published specifications of fastest available colour mode (as of March 2012) and includes colour laser MFPs <€1.000 and colour laser printers <€800 excluding VAT as of March 2012, based on market share as reported by IDC as of Q1 2012 and HP internal testing of printer in fastest available colour mode (sample 4-page category documents tested from ISO 24734). For more information, see www.hp.com/ao/printerspeeds.
- 9 Cost per page (CPP) claim is based on the majority of colour laser MFPs <€1,000 and colour laser printers <€800 excluding VAT as of March 2012, ISO yield based on continuous printing in default mode based on market share as reported by IDC as of Q1 2012. CPP comparisons for laser supplies are based on published specifications of the manufacturers' cartridges with similar available capacities. CPP based on HP 970XL/971XL ink cartridges' estimated street price. Note that actual prices may vary. Actual yields may vary based on printer used, images printed and other factors. For more information, see www.hp.com/go/learnaboutsupplies.
- <sup>10</sup> Testing performed in accordance with ISO 11798:2000 information and documentation, conducted by SP Technical Research Institute of Sweden, November, 2012. For more information, see h41112.www.4.hp.com/certifications/se/sv

  HP Web Jetadmin is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>. The HP Universal Print Driver is free and can be downloaded at <a href="https://www.hp.com/go/webjetadmin">www.hp.com/go/webjetadmin</a>.
- 12 Requires a wireless access point and an Internet connection to the printer. Services require registration. App availability varies by country, language, and agreements, and requires a firmware upgrade. For details, www.hp.com/go/eprintcenter.
- <sup>13</sup> Requires an Internet connection to an HP web-enabled printer and HP ePrint account registration (for a list of eligible printers, supported documents and image types, and other HP ePrint details, see <a href="https://www.hp.com/go/eprintcenter">www.hp.com/go/eprintcenter</a>). Mobile devices require Internet connection and email capability. May require wireless access point. Separately purchased data plans or usage fees may apply. Print times and connection speeds may vary.
- <sup>14</sup> Black page volume based on HP 970XL black ink cartridge. Color page volume based on HP 971XL Cyan, Magenta, or Yellow Ink Cartridges.
- 15 Majority of colour laser MFPs <€1,000 and colour laser printers <€800 excluding VAT as of August 2012, Officejet Pro. Energy use based on HP testing and third-party testing commissioned by HP. Actual cost and energy usage may vary. For details, see www.hp.com/qo/officejet.
- 16 Compares weight of empty cartridge and packaging materials needed for 15,000 pages using highest-capacity cartridges of major in-class competitors' colour laser MFPs <€1,000 and colour laser printers <€800 excluding VAT as of October 2012. Tested by Buyers Lab Inc. For more information www.hp.com/go/officejet.
- <sup>17</sup> An independent study commissioned by HP with Mozilla Firefox 14.0.1, Internet Explorer 9, and Google Chrome 21.0.1180.79. Study compared paper consumption using HP Smart Print with a web browser's print command when printing typical content from the Internet.
- 18 Program availability varies. Original HP cartridge return and recycling is currently available in 47 countries, territories, and regions in Asia, Europe, and North and South America through the HP Planet Partners program. For more information, visit www.hp.com/recvcle.
- 19 No heating or fusing warm up time required.
- Fade resistance based on paper industry predictions for acid-free papers and original HP inks; colorant stability data at room temperature based on similar systems tested per ISO 11798 and ISO 18909.
- <sup>21</sup> Based on HP internal testing, using paper with the ColorLok logo. For details, go to www.hp.com/go/printpermanence.
- <sup>22</sup> Based on paper-industry predictions for acid-free papers and original HP inks; colorant stability data at room temperature based on similar systems tested per ISO 11798 and ISO 18909.
- <sup>23</sup> Google<sup>™</sup> and Gmail are trademarks of Google Inc. Feature requires Google Cloud Print Ready printer or existing printer connected to a PC with Internet access. Print times may vary. Currently only Google apps are supported.
- <sup>24</sup> Supports the following devices running iOS 4.2 or later: iPad®, iPhone® (3GS or later), iPod touch® (3rd generation or later). Works with HP's AirPrint-enabled printers and requires the printer be connected to the same network as your iOS device. Wireless performance is dependent upon physical environment and distance from the access point.
- <sup>25</sup> HP SureSupply alerts you when you should replace a print cartridge and helps you purchase locally or via the Internet. Only available with original HP supplies. Internet access required. For more information, visit www.hp.com/learn/suresupply.
- <sup>26</sup> Acoustic values are subject to change. For current information see <u>www.hp.com/support</u>.
- 27 Power requirements are based on the country/region where the printer is sold. Do not convert operating voltages. This will damage the printer and void the product warranty. Power consumption in Standby and Sleep modes depends on customer network switch capability, user configuration and network activity.

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